FIG.1

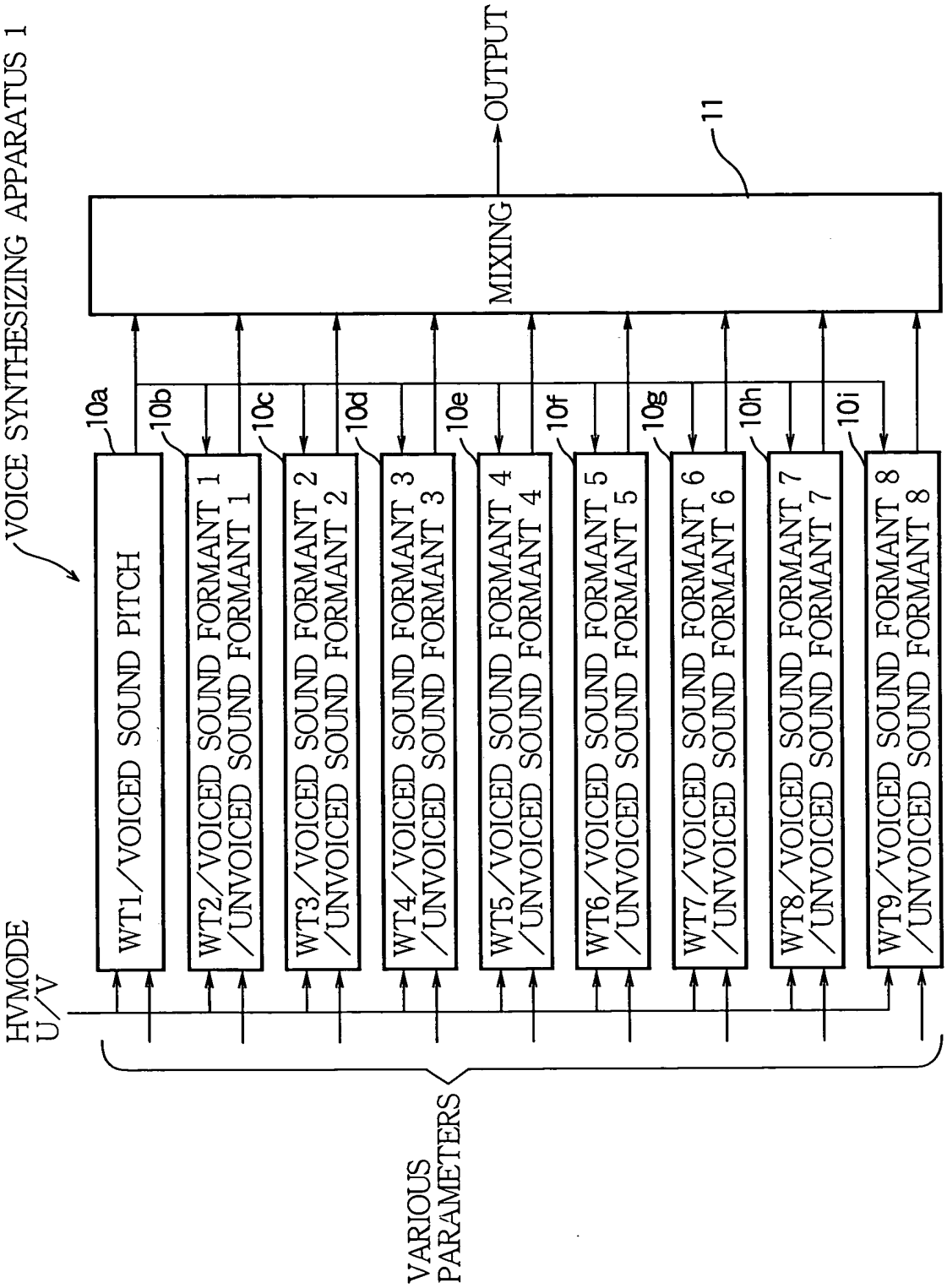

VOICE SYNTHESIZING APPARATUS 1
HVMODE
U/V
VARIOUS
PARAMETERS
10a
WT1/VOICED SOUND PITCH
10b
WT2/VOICED SOUND FORMANT 1
/UNVOICED SOUND FORMANT 1
10c
WT3/VOICED SOUND FORMANT 2
/UNVOICED SOUND FORMANT 2
10d
WT4/VOICED SOUND FORMANT 3
/UNVOICED SOUND FORMANT 3
10e
WT5/VOICED SOUND FORMANT 4
/UNVOICED SOUND FORMANT 4
10f
WT6/VOICED SOUND FORMANT 5
/UNVOICED SOUND FORMANT 5
10g
WT7/VOICED SOUND FORMANT 6
/UNVOICED SOUND FORMANT 6
10h
WT8/VOICED SOUND FORMANT 7
/UNVOICED SOUND FORMANT 7
10i
WT9/VOICED SOUND FORMANT 8
/UNVOICED SOUND FORMANT 8
MIXING
11
OUTPUT

FIG.2

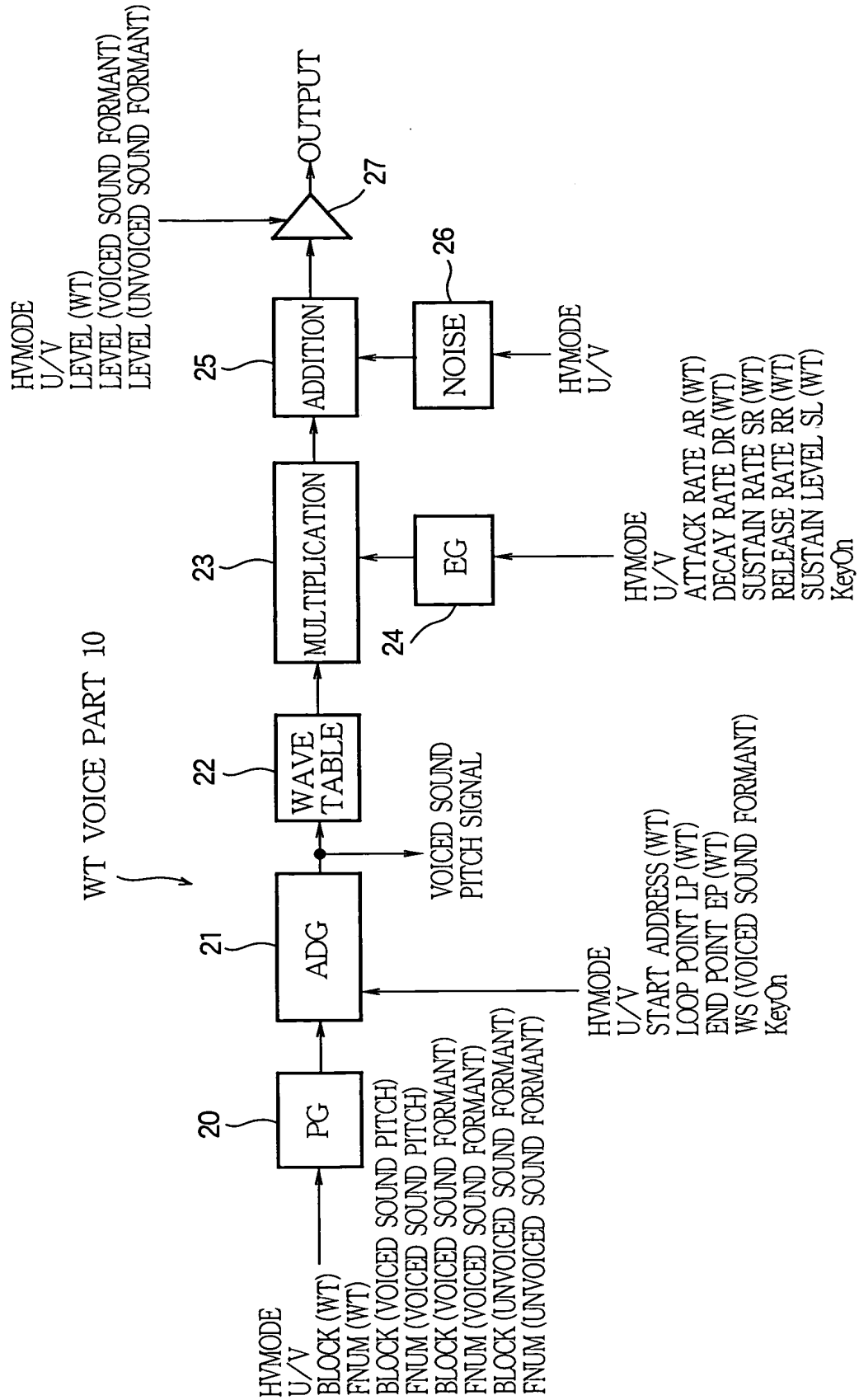

WT VOICE PART 10
HVMODE
U/V
BLOCK (WT)
FNUM (WT)
BLOCK (VOICED SOUND PITCH)
FNUM (VOICED SOUND PITCH)
BLOCK (VOICED SOUND FORMANT)
FNUM (VOICED SOUND FORMANT)
BLOCK (UNVOICED SOUND FORMANT)
FNUM (UNVOICED SOUND FORMANT)
20
PG
21
ADG
HVMODE
U/V
START ADDRESS (WT)
LOOP POINT LP (WT)
END POINT EP (WT)
WS (VOICED SOUND FORMANT)
KeyOn
VOICED SOUND
PITCH SIGNAL
22
WAVE TABLE
23
MULTIPLICATION
24
EG
HVMODE
U/V
ATTACK RATE AR (WT)
DECAY RATE DR (WT)
SUSTAIN RATE SR (WT)
RELEASE RATE RR (WT)
SUSTAIN LEVEL SL (WT)
KeyOn
25
ADDITION
26
NOISE
HVMODE
U/V
HVMODE
U/V
LEVEL (WT)
LEVEL (VOICED SOUND FORMANT)
LEVEL (UNVOICED SOUND FORMANT)
27
OUTPUT

FIG.3

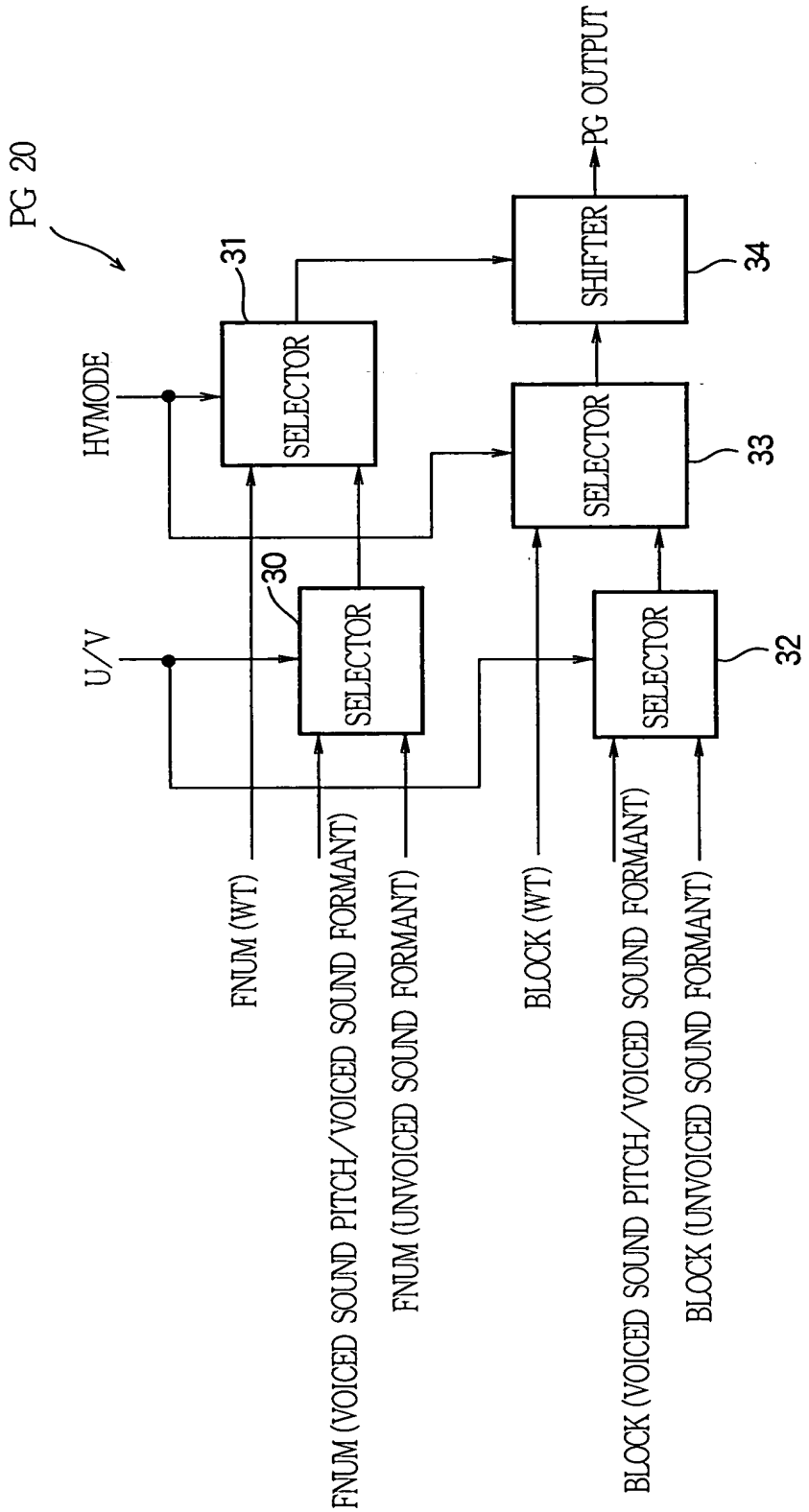

PG 20
HVMODE
U/V
31
SELECTOR
30
SELECTOR
SELECTOR
33
SELECTOR
32
SHIFTER
34
PG OUTPUT
FNUM (WT)
FNUM (VOICED SOUND PITCH/VOICED SOUND FORMANT)
FNUM (UNVOICED SOUND FORMANT)
BLOCK (WT)
BLOCK (VOICED SOUND PITCH/VOICED SOUND FORMANT)
BLOCK (UNVOICED SOUND FORMANT)

FIG.4

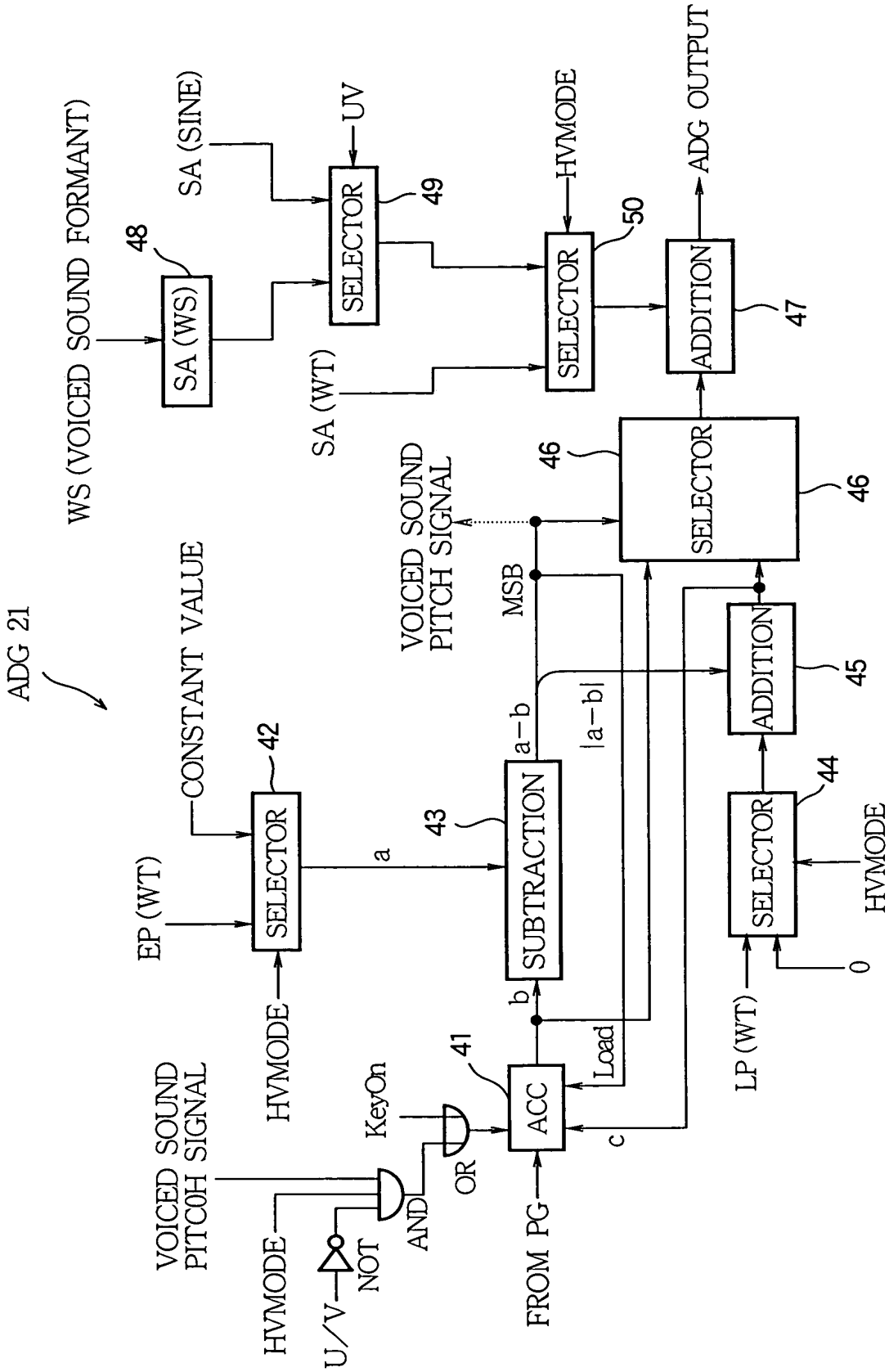

ADG 21
WS (VOICED SOUND FORMANT)
SA (WS)
48
SA (SINE)
SELECTOR
49
UV
SA (WT)
SELECTOR
50
HVMODE
ADDITION
47
ADG OUTPUT
VOICED SOUND PITCH SIGNAL
MSB
46
SELECTOR
46
CONSTANT VALUE
EP (WT)
SELECTOR
42
HVMODE
a
43
SUBTRACTION
a−b
|a−b|
ADDITION
45
b
Load
c
SELECTOR
44
HVMODE
LP (WT)
0
VOICED SOUND PITCOH SIGNAL
HVMODE
U/V
NOT
AND
KeyOn
OR
41
ACC
FROM PG

FIG.5

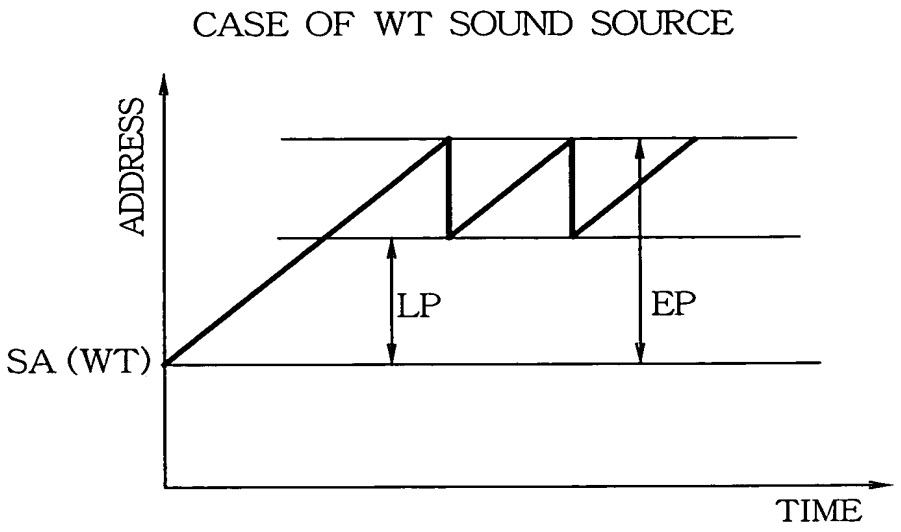

CASE OF WT SOUND SOURCE
ADDRESS
LP
EP
SA (WT)
TIME

FIG.6

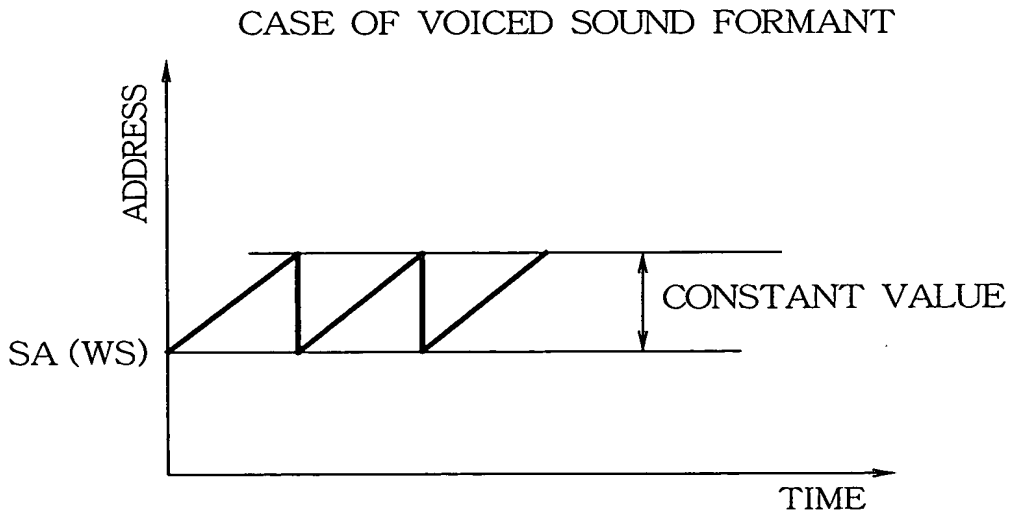

CASE OF VOICED SOUND FORMANT
ADDRESS
CONSTANT VALUE
SA (WS)
TIME

FIG.7

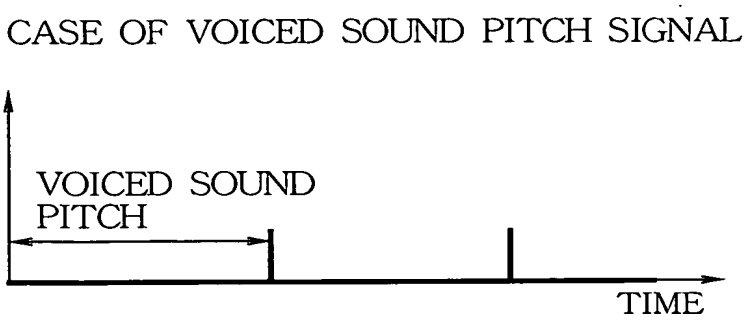

CASE OF VOICED SOUND PITCH SIGNAL
VOICED SOUND PITCH
TIME

FIG.8

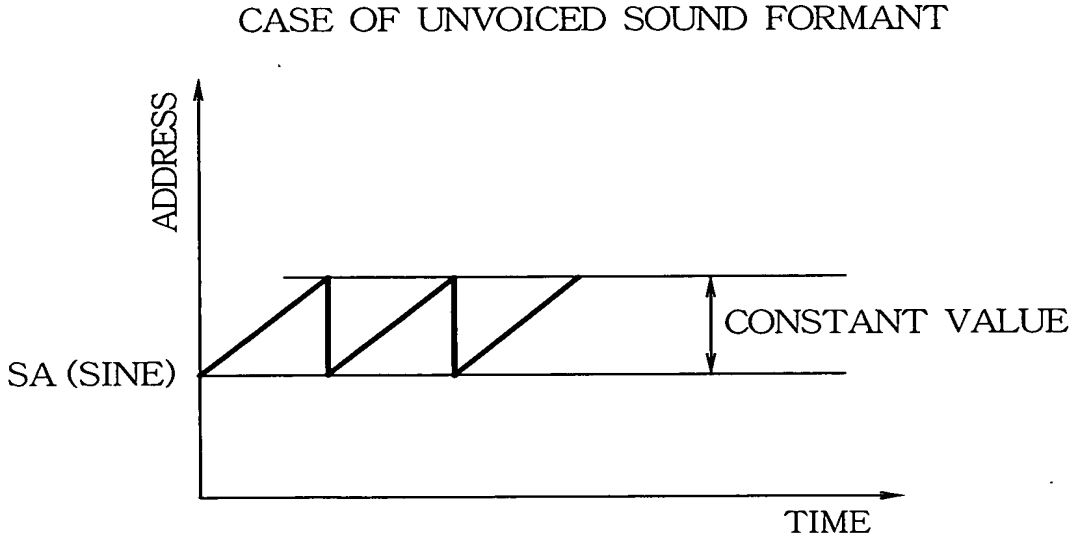

CASE OF UNVOICED SOUND FORMANT
ADDRESS
CONSTANT VALUE
SA (SINE)
TIME

FIG.9

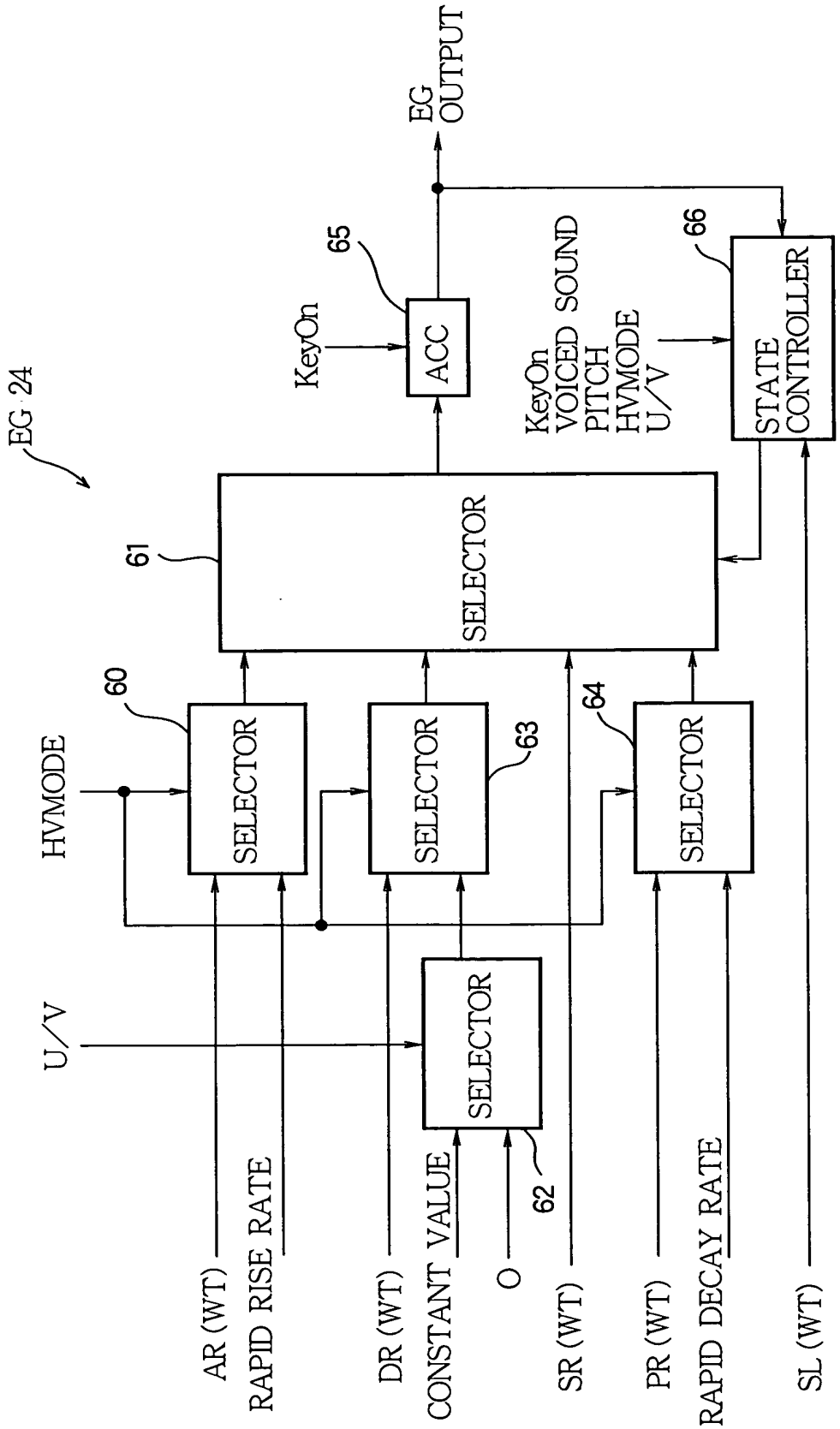

EG 24
EG OUTPUT
65
ACC
KeyOn
66
STATE CONTROLLER
KeyOn
VOICED SOUND
PITCH
HVMODE
U/V
61
SELECTOR
60
SELECTOR
63
SELECTOR
64
SELECTOR
HVMODE
U/V
62
AR (WT)
RAPID RISE RATE
DR (WT)
CONSTANT VALUE
0
SR (WT)
PR (WT)
RAPID DECAY RATE
SL (WT)

FIG.10

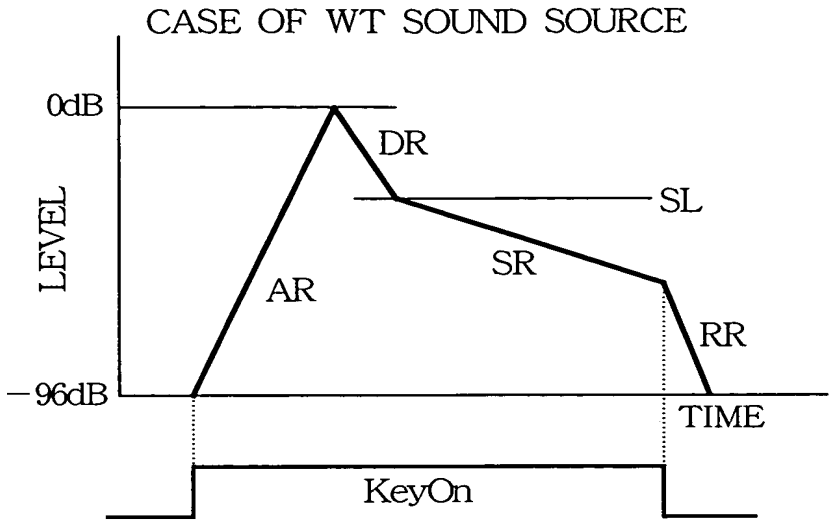


FIG.11

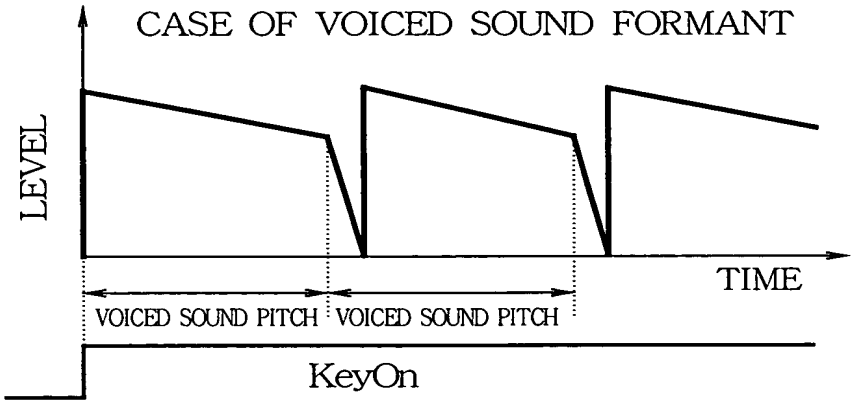


FIG.12

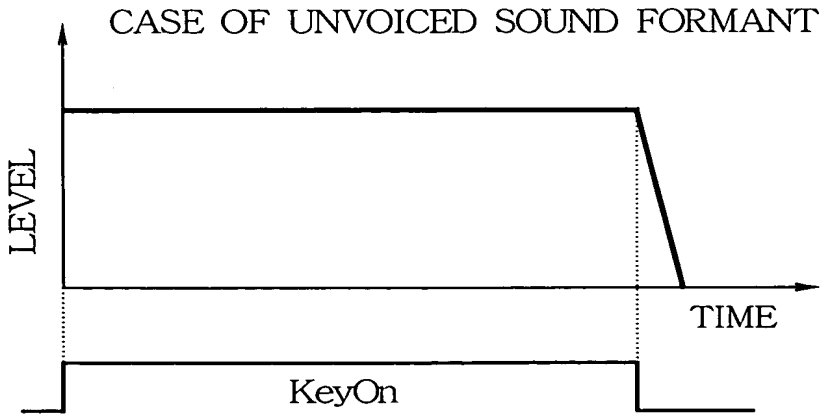


FIG.13

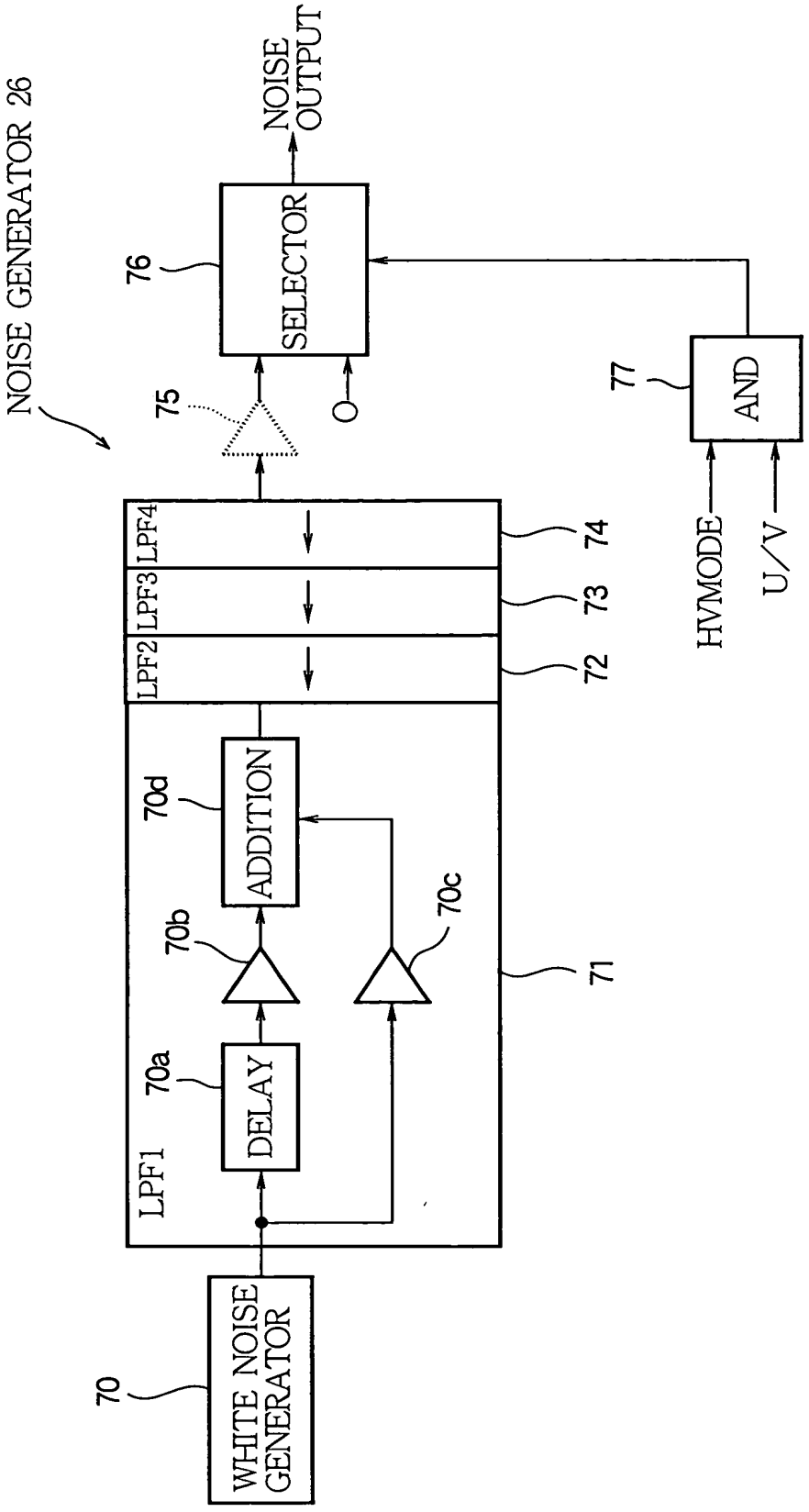
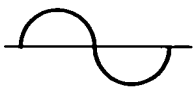
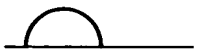
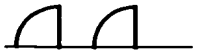
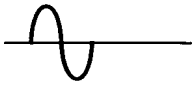
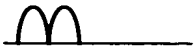
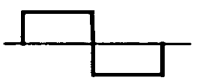
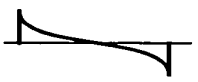
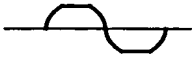
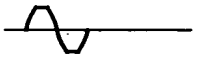
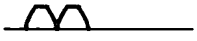
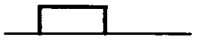
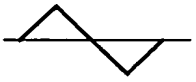
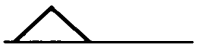
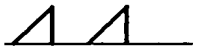
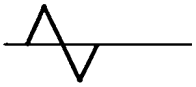
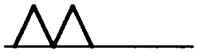
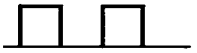
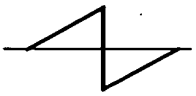
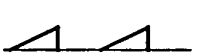
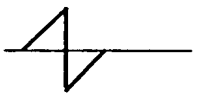
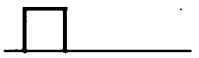

NOISE GENERATOR 26
NOISE OUTPUT
76
SELECTOR
75
0
77
AND
HVMODE
U/V
LPF4
LPF3
LPF2
74
73
72
70d
ADDITION
70b
70c
71
LPF1
70a
DELAY
70
WHITE NOISE GENERATOR

FIG.14

0		1		2		3	
4		5		6		7	
8		9		10		11	
12		13		14		15	USE ANY WAVEFORM ON MEMORY
16		17		18		19	
20		21		22		23	USE ANY WAVEFORM ON MEMORY
24		25		26		27	
28		29		30		31	USE ANY WAVEFORM ON MEMORY